

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. - 10. (Cancelled)

11. (Currently Amended) An image processing apparatus of correcting the color of a predetermined range of a pixel signal for each pixel included in an input image signal, comprising:

a target color setting means of setting unit which sets a target color depending on which the color of said pixel signal is corrected, and

a color conversion means of carrying converter which carries out correction to make the color of said pixel signal coincident with or close to said target color by using a) said pixel signal, b) information of identifying a photographic scene by also using photographic information, and c) said target color, wherein

said color ~~conversion means~~converter comprises:

an intensity determination means of generating unit which generates a correction intensity that is ~~small on the smaller on a periphery of the of a~~ color region of said ~~and larger in a vicinity of a central portion of said color region,~~ said color region having a specific range set on the basis of two chromaticity components ~~excluding the~~excluding a luminance component in the color of said pixel signal ~~and large in the vicinity of the central portion of said region,~~

a correction degree setting means of setting unit which sets a correction degree by ~~also by~~ using information, ~~other than pixel information, included in a~~ said pixel signal, b) said information of identifying said photographic scene, and c) said target color, and

~~a correction means of making~~unit which makes the color of said pixel signal coincident with or close to said target color depending on said correction intensity having been generated and said correction degree having been set, wherein

~~said correction degree setting means—unit~~ sets said correction degree by identifying at least an image photographing scene according to said input image signal.

12. (Currently Amended) An image processing apparatus of correcting the color of a predetermined range of a pixel signal for each pixel included in an input image signal, comprising:

~~a target color setting means of setting~~unit which sets a target color depending on which the color of said pixel signal is corrected, and

~~a color conversion means of carrying~~converter which carries out correction to make the color of said pixel signal coincident with or close to said target color by using a) the luminance component in the color of said pixel signal, b) two chromaticity components excluding said luminance component in the color of said pixel signal, and c) said target value, wherein

~~said color conversion means~~converter determines said correction degree by using not only said two chromaticity components of said pixel signal to be corrected but also said luminance component of said pixel signal to be corrected and, wherein

~~said color conversion means~~converter comprises:

~~an intensity determination means of—generating~~unit which generates a correction intensity that is small on the ~~smaller on a~~ periphery of the ~~of a~~ color region of said and larger in a vicinity of a central portion of said color region, said color region having a specific range set on the basis of the luminance component and the two chromaticity components excluding said luminance component in the color of said pixel signal and large in the vicinity of the central portion of said region, and

~~a correction means-of-making~~unit which makes the color of said pixel signal coincident with or close to said target color depending on said correction intensity having been generated.

13. (Currently Amended) An image processing apparatus in accordance with claim 12, wherein said intensity determination ~~means-unit~~ comprises:

~~a first function generation means-of-outputting~~generator which outputs a candidate of a first correction intensity for said luminance signal,

~~second and third function generation means-of-outputting~~generators which output candidates of second and third correction intensities for said two chromaticity components, respectively, and

~~synthesizing means-of-synthesizing~~a synthesizer which synthesizes the candidates of said first, second and third correction intensities and ~~outputting-outputs~~ the result as said correction intensity.

14. (Currently Amended) The image processing apparatus in accordance with claim 12, wherein said intensity determination ~~means-unit~~ comprises:

~~a first function generation means-of-outputting~~generator which outputs a candidate of a first correction intensity for said luminance signal,

~~a two-dimensional function generation means-of-outputting~~generator which outputs a second correction intensity on the basis of a two-dimensional function typified by an ellipse using said two chromaticity components, and

~~synthesizing means-of-synthesizing~~a synthesizer which synthesizes the candidates of said first and second correction intensities and ~~outputting-outputs~~ the result as said correction intensity.

15. (Currently Amended) The image processing apparatus in accordance with claim 12, wherein said intensity determination ~~means-unit~~ comprises:

~~a first function generation means-of-outputting~~generator which outputs a candidate of a first correction intensity for said luminance signal,

~~a first polar coordinate conversion means of converting~~converter which converts said two chromaticity components into a hue signal and a saturation signal,

~~a second function generation means of outputting~~generator which generates a candidate of a second correction intensity for said hue signal,

~~a third function generation means of outputting~~generator which generates a candidate of a third correction intensity for said saturation signal, and

~~synthesizing means of synthesizing~~a synthesizer which synthesizes the candidates of said first, second and third correction intensities and ~~outputting~~outputs the result as said correction intensity.

16. (Currently Amended) The image processing apparatus in accordance with claim 11 or 12, wherein said correction ~~means-unit~~ corrects each of said two chromaticity components to a value obtained when each of said two chromaticity components and two target chromaticity values output from said target color setting ~~means-unit~~ are internally divided depending on said correction intensity.

17. (Currently Amended) The image processing apparatus in accordance with claims 11 or 12, wherein

said correction ~~means-unit~~ has a second polar coordinate ~~conversion means of converting~~converter which converts said two chromaticity components into a hue signal and a saturation signal and said saturation signal output from said second polar coordinate ~~conversion means~~converter being converted to a value obtained when said hue signal and said saturation signal and the target hue signal and the target saturation signal output from said target color setting ~~means-unit~~ are internally divided depending on said correction intensity.

18. (Currently Amended) The image processing apparatus in accordance with claim 11 or 12, wherein

said intensity determination ~~means-unit~~ outputs a hue correction intensity for hue correction and a saturation correction intensity for saturation correction,

said correction ~~means-unit~~ has a second polar coordinate ~~conversion-means-of-converting~~converter which converts said two chromaticity components into a hue signal and a saturation signal,

a hue correction means-of-correctingunit which corrects said hue signal having been converted to a value obtained when said hue signal and the target hue value output from said target color setting ~~means-unit~~ are internally divided depending on said hue correction intensity, and

a saturation correction means-of-correctingunit which corrects said saturation signal having been converted to a value obtained when said saturation signal and the target saturation value output from said target color setting ~~means-unit~~ are internally divided depending on said saturation correction intensity.

19. (Currently Amended) The image processing apparatus in accordance with claim 11, wherein said correction degree setting ~~means-unit~~ determines said correction degree according to said input image signal and photographic information at the time when an input image is taken.

20. (Currently Amended) The image processing apparatus in accordance with claim 19, wherein said correction degree setting ~~means-unit~~ comprises:

an image identification-means-of-identifyingidentifier which identifies the photographic scene of an image according to said input image signal,

a photographic information identification-means-of-identifyingidentifier which identifies a photographic scene according to the photographic information at the time when said input image signal is photographed, and

a correction degree determination means-of-determiningunit which determines said correction degree according to the outputs of said image identification ~~means~~identifier and said ~~image—photographic~~ information identification ~~means~~identifier.

21. (Currently Amended) The image processing apparatus in accordance with claim 20, wherein said image ~~identification-means~~identifier and said photographic

information ~~identification-means~~identifier identify whether a person is included in an image or not.

22. (Currently Amended) The image processing apparatus in accordance with claim 20, wherein said image ~~identification-means~~identifier and said photographic information ~~identification-means~~identifier identify whether the sky is included in an image or not.

23. (Currently Amended) The image processing apparatus in accordance with claim 20, wherein said image ~~identification-means~~identifier and said photographic information ~~identification-means~~identifier identify whether green plants are included in an image or not.

24. (Currently Amended) An image processing apparatus of correcting the color of a predetermined range of a pixel signal for each pixel included in an input image signal, comprising:

a target color setting means-of-setting unit which sets a target color depending on which the color of said pixel signal is corrected,

a color conversion-means-of-carrying converter which carries out correction to make the color of said pixel signal coincident with or close to said target color by using a) said pixel signal, b) photographic information, and c) said target color, and

means-of-interpolating an interpolator which interpolates a three-dimensional look-up table of using three input signals as addresses and ~~outputting-outputs three~~ output signals or ~~interpolating-interpolates~~ two of said three-dimensional look-up tables, wherein

the correspondence relationship of making the color of said pixel signal to correspond to the color corrected using said color ~~conversion-means~~converter is stored in said three-dimensional look-up table in advance, and

the color of said each pixel signal is corrected using said three-dimensional look-up table.

25. - 34. (Cancelled)

35. (Currently Amended) An image processing apparatus of correcting the color of a predetermined range of a pixel signal for each pixel included in an input image signal, comprising:

a target color setting means of setting unit which sets a target color depending on which the color of said pixel signal is corrected,

a color conversion means of carrying converter which carries out correction to make the color of said pixel signal coincident with or close to said target color by using a) the luminance component in the color of said pixel signal, b) two chromaticity components excluding said luminance component in the color of said pixel signal, and c) said target value, and

means of interpolating an interpolator which interpolates a three-dimensional look-up table of using three input signals as addresses and outputting-outputs three output signals or interpolating-interpolates two of said three-dimensional look-up tables, wherein

said color ~~conversion means~~converter determines said correction degree by using not only said two chromaticity components of said pixel signal to be corrected but also said luminance component of said pixel signal to be corrected,

the correspondence relationship of making the color of said pixel signal to correspond to the color corrected using said color ~~conversion means~~converter is stored in said three-dimensional look-up table in advance, and

the color of said each pixel signal is corrected using said three-dimensional look-up table.

36. (Currently Amended) An image processing apparatus of correcting the color of a predetermined range of a pixel signal for each pixel included in an input image signal, comprising:

~~a_target color setting means-of-settingunit which sets~~ a target color depending on which the color of said pixel signal is corrected,

~~an_intensity determination means-of-generatingunit which generates~~ a correction intensity on the basis of at least one chromaticity component,

among the luminance component and the two chromaticity components in the color of said pixel signal, ~~a_photographic image information identification-means-of-identifyingidentifier which identifies~~ whether an object as a target of a correction of color is included or not for each input image, the ~~photographic image information meansinformation identifier~~ identifying according to photographic information at the time when the input image is taken,

~~a_correction degree determination means-of-determiningunit which determines~~ a correction degree for each input image, according to the output of said photographic ~~image information identification-meansidentifier~~ and

~~a_correction means-of-correctingunit which corrects~~ the color of said pixel signal according to said correction intensity generated for each pixel and said correction degree determined for each input image, wherein

said correction ~~means-unit~~ performs a correction of said color of said pixel signal so that a difference between said target color and said color becomes smaller after the correction than before the correction.

37. (Currently Amended) The image processing apparatus according to claim 36, wherein

said photographic ~~image information identification-meansidentifier~~ identifies, according to a distance to object(s) of said photographic information, as to whether a person who is able to be considered as a primary object based on its size is included or not in said input image.

38. (Currently Amended) The image processing apparatus according to claim 37, wherein

said photographic image information identification—meansidentifier identifies the person who is able to be considered as the primary object based on its size is not included in said input image in the case that the distance to said object(s) is a distance of macro view or a distance of distant view.

39. (Currently Amended) The image processing apparatus according to claim 36, wherein

said photographic image information identification—meansidentifier identifies, according to an information of said photographic information regarding flash light, a person who is able to be considered as a primary object based on its size is not included in said input image in the case that the flash light is emitted and its returned light is not detected.

40. (Previously Presented) The image processing apparatus according to claim 39, wherein

the detection of said returned light is performed so as to be judged that said returned light was not detected when the luminance at a central portion in said image was not relatively high.

41. (Previously Presented) The image processing apparatus according to claim 39, wherein

the detection/non-detection of said returned light is judged according to the information recorded in said photographic information.

42. (Currently Amended) The image processing apparatus according to claim 39, where

said photographic image information identification—meansidentifier identifies, according to an information of said photographic information regarding a light source, as to whether a sky is to be included or not in said input image.

43. (Currently Amended) The image processing apparatus according to claim 42, wherein

| said photographic image information identification—meansidentifier identifies the sky is not included in said input image in the case that said information regarding the light source indicates said light source is an indoor light.

44. (Currently Amended) The image processing apparatus according to claim 36, wherein

| said photographic image information identification—meansidentifier identifies, according to a photographing time of said photographic information, as to whether a sky is to be included or not in said input image.

45. (Currently Amended) The image processing apparatus according to claim 36, wherein

| said photographic image information identification—meansidentifier identifies, according to an estimated brightness of the object, that a sky is not included in said input image in the case that the estimated brightness is lower than a predetermined value, and

 the estimated brightness is estimated according to a shutter speed and a aperture value both of which are included in said photographic information.

46. (Currently Amended) The image processing apparatus according to claim 36, wherein

| said photographic image information identification—meansidentifier identifies, according to a photographic scene information of said photographic information, as to whether a person is included or not in said input image.